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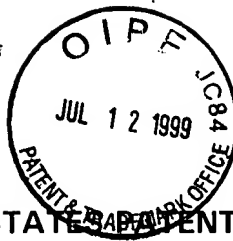
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TRANSMITTAL FORM (To be used for all correspondence after initial filing)	Application Number	09/307,223	
	Filing Date	May 7, 1999	
	First Named Inventor	Judith A. Varner	
	Group Art Unit	Not yet assigned	
	Examiner Name	Not yet assigned	
Total Number of Pages in This Submission	879	Attorney Docket Number	6627-PA11

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts Under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Small Entity Statement <input type="checkbox"/> Request for Refund	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communications to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below): PTO/SB/08A (6 SHEETS); 45 REFERENCES AND A POSTCARD
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
ATTORNEY NAME	Richard J. Imbra, Reg. No.: 37,643
FIRM	BROWN, MARTIN, HALLER & McCLAIN, LLP
SIGNATURE	<i>Richard J. Imbra</i>
DATE	July 9, 1999

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: July 9, 1999			
Typed or printed name	Richard J. Imbra		
Signature	<i>Richard J. Imbra</i>	Date	July 9, 1999



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of)
Judith A. Varner) FOR: METHODS FOR DETECTING AND
Serial No.: 09/307,223) INHIBITING ANGIOGENESIS
Filed: May 7, 1999) Group
Art Unit: TBA

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98**

Assistant Commissioner for Patents
Washington, D.C. 20231

Attention: Examiner

Dear Sir:

Applicant and Applicant's representative submit herewith references of which they are aware, which we believe may be material to patentability of the invention disclosed and claimed in the above-cited application and with respect to which there may be a duty to disclose in accordance with 37 C.F.R. § 1.56.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on:

July 9, 1999

(Mailing Date)

Richard J. Imbra

(Typed Name)

Richard J. Imbra

(Signature)

July 9, 1999

(Date of Signature)

Submitted herewith are copies of the references as set forth on the attached Form PTO/SB/08A, except that copies of the cited U.S. Patents are not enclosed. As all relevant parts of the references are in the English language, no explanation of the references is provided herein.

This Information Disclosure Statement is submitted within three (3) months of the filing date of the above-cited application and of the date of entry into the national phase of the application, and prior to the mailing date of a first Office Action thereon, such that no fee is required.

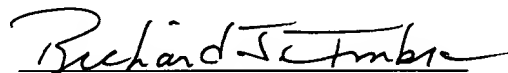
Further, while the references provided in this Information Disclosure Statement may be material to patentability pursuant to 37 C.F.R. § 1.56, it is not intended to constitute an admission that any reference referred to herein is prior art for this invention.

Also, in accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(a) exists.

Respectfully submitted,

Dated: July 9, 1999

By:



Richard J. Imbra

Attorney for Applicant

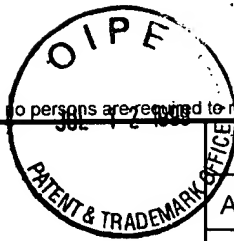
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Docket No.: 6627-PA11



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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known			
				Application Number	09/307,223		
				Filing Date	May 7, 1999		
				First Named Inventor	Judith A. Varner		
				Group Art Unit	NYA		
				Examiner Name	NYA		
Sheet	1	of	6	Attorney Docket Number	6627-PA11		
U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY		
		Number	Kind Code ² (if known)				
	A1	US5753230		Brooks et al	05-19-98		
	A2	US5766591		Brooks et al.	06-16-98		
	A3	US5627263		Rouslahti et al.	05-06-97		
	A4	US5855866		Thorpe et al	01-05-99		
FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁶
		Office ³	Number ⁴ (if known)	Kind Code ⁵			
	B1		WO95/14714		LA JOLLA CANCER RESEARCH FOUNDATION	06-01-95	
	B2		WO97/10507		LA JOLLA CANCER RESEARCH FOUNDATION	03-20-97	
	B3		WO98/10795		LA JOLLA CANCER RESEARCH FOUNDATION	03-19-98	
	B4		WO99/13329		LA JOLLA CANCER RESEARCH FOUNDATION	03-18-99	
	B5		EP0906919A2		LA JOLLA CANCER RESEARCH FOUNDATION	04-07-99	
Examiner Signature					Date Considered		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent documents.

⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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				Examiner Name		NYA		
Sheet	2	of	6	Attorney Docket Number		6627-PA11		
OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS								
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					T ²	
	C1	AOTA, S., NOMIZU, M., and Yamada, K.M. 1994. The short amino acid sequence Pro-His-Ser-Arg-Asn in human fibronectin enhances cell-adhesive function. J. Biol. Chem. 269: 24755-24761.						
	C2	ARAP W et al. 1997. Cancer treatment by targeted drug delivery to tumor vasculature in a mouse model. Science 279: 377-380.						
	C3	BADER, B.L. et al. 1998. Extensive vasculogenesis, angiogenesis, and organogenesis precede lethality in mice lacking all α v integrins. Cell 95: 507-519.						
	C4	BLOCH, W. et al. 1997. β 1 integrin is essential for teratoma growth and angiogenesis. J. Cell Biol. 139: 265-278.						
	C5	BLYSTONE, S.D. et al. 1994. Integrin α v β 3 differentially regulates adhesive and phagocytic functions of the fibronectin receptor α 5 β 1. J. Cell Biol. 127: 1129-1137.						
	C6	BROOKS, P.C. et al. 1994a. Requirement of vascular integrin alpha v beta 3 for angiogenesis. Science 264: 569-571.						
	C7	BROOKS, P.C. et al. 1994b. Integrin alpha v beta 3 antagonists promote tumor regression by inducing apoptosis of angiogenic blood vessels. Cell 79:1157-1164.						
	C8	BROOKS, P.C., et al. 1995. Anti-integrin alpha v beta 3 blocks human breast cancer growth and angiogenesis in human skin. J. Clin. Invest. 96: 1815-1822.						
Examiner						Date Considered		

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	C9	CARRON, C.P. et al. 1998. A peptidomimetic antagonist of the integrin $\alpha v \beta 3$ inhibits Leydig cell tumor growth and development of hypercalcemia of malignancy. Cancer Res. 58: 1930-1955.			
	C10	CASTELLANI, P. et al. 1994. The fibronectin isoform containing the ED-B oncofetal domain: a marker of angiogenesis. Int. J. Cancer 59: 612-618.			
	C11	CHARO, IF et al. 1990. The vitronectin receptor $\alpha v \beta 3$ binds fibronectin and acts in concert with $\alpha 5 \beta 1$ in promoting cellular attachment and spreading on fibronectin. J. Cell Biol. 111: 2795-800.			
	C12	CHRISTOFIDOU-SOLOMIDOU, M. et al. 1997. Expression and function of endothelial cell αv integrin receptors in wound-induced human angiogenesis in human skin/SCID mice chimeras. Am. J. Path. 151: 975-983.			
	C13	CLARK, R.A.F. et al. 1982. Blood vessel fibronectin increases in conjunction with endothelial cell proliferation and capillary ingrowth during wound healing. J. Invest. Dermatol. 79: 269-276.			
	C14	CLARK, R.A.F. et al. 1996. Transient functional expression of $\alpha v \beta 3$ on vascular cells during wound repair. Am. J. Path. 148: 1407-1421.			
	C15	COLLO, G. and Pepper, M.S. 1999. Endothelial cell integrin $\alpha 5 \beta 1$ expression is modulated by cytokines and during migration in vitro. J. Cell Sci. 112: 569-578.			
	C16	DRAKE, C.J. et al. 1992. Antibodies to $\beta 1$ -integrins cause alterations of aortic vasculogenesis, in vivo. Dev. Dyn. 193: 83-91.			
	C17	DRAKE, C.J. et al. 1995. An antagonist of integrin $\alpha v \beta 3$ prevents maturation of blood vessels during embryonic neovascularization. J. Cell Science 108: 2655-2661.			
	C18	FRIEDLANDER, M. et al. 1995. Definition of two angiogenic pathways by distinct αv integrins. Science 270: 1500-1502.			
Examiner				Date Considered	

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Sheet	4	of	6	Attorney Docket Number	6627-PA11
OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	C19	FRIEDLANDER M. et al. 1996. Involvement of integrin $\alpha v \beta 3$ and $\alpha v \beta 5$ in ocular neovascular diseases. Proc. Natl. Acad. Sci. 93: 9764-9769.			
	C20	GEORGE, E. L., et al. 1993. Defects in mesodermal migration and vascular development in fibronectin-deficient mice. Development 119: 1079-1091.			
	C21	GOH, K. L. et al. 1997. Mesodermal defects and cranial neural crest apoptosis in $\alpha 5$ integrin-null embryos. Development 124: 4309-4319.			
	C22	LAN, N. et al. 1998. Distinct signal transduction pathways are utilized during the tube formation and survival phases of in vitro angiogenesis. J. Cell Sci. 111: 3621-3631.			
	C23	KACZMAREK, J. et al. 1994. Distribution of oncofetal fibronectin isoforms in normal hyperplastic and neoplastic human breast tissues. Int. J. Cancer 58: 11-16.			
	C24	KOIVUNEN, E. et al. 1993. Selection of peptides binding to the $\alpha 5 \beta 1$ integrin from a phage display library. J. Biol. Chem. 268: 20205-20210.			
	C25	KOIVUNEN, E., Wang, B., Ruoslahti, E. 1994. Isolation of a highly specific ligand for the $\alpha 5 \beta 1$ integrin from a phage display library. J. Cell Biol. 124: 373-380.			
	C26	MAGNUSSON, M.K. and Mosher, D.F. 1998. Fibronectin: Structure, assembly, and cardiovascular implications. Arterioscler. Thromb. Vasc. Biol. 18: 1363-1370.			
	C27	NERI, D., Carnemolla, B., Nissim, A., Blaza, E., Leprini, A., Querze, G., Pina, A., Tarli, L., Halin, C., Neri, P., Zardi, L. Winter, G. 1997. Targeting by affinity-matured recombinant antibody fragments of an angiogenesis associated fibronectin isoform, Nature Biotech. 15: 1271-1275.			
	C28	PIERSCHBACHER, M.D., Hayman, EG; and Ruoslahti, E. 1981. Location of the cell-attachment site in fibronectin with monoclonal antibodies and proteolytic fragments of the molecule. Cell 26: 259-67.			
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	C29	PYTELA, R. et al. 1985. Identification and isolation of a 140 kD cell surface glycoprotein with properties expected of a fibronectin receptor. Cell 40: 191-98.			
	C30	RUOSLAHTI, E. et al. 1981. Alignment of biologically active domains in the fibronectin molecule. J. Biol. Chem. 256:7277-81.			
	C31	SECHLER, J. L. and Schwartzbauer, J.E. 1998 Control of cell cycle progression by fibronectin matrix architecture. J. Biol. Chem. 273: 25533-25536.			
	C32	SENGER, D.R. et al. 1996. Stimulation of endothelial cell migration by vascular permeability factor/vascular endothelial growth factor through cooperative mechanisms involving the alpha v beta3 integrin, osteopontin, and thrombin. Am. J. Pathol. 149:1-7.			
	C33	SENGER, D. R. et al. 1997. Angiogenesis promoted by vascular endothelial growth factors: Regulation through alpha1beta1 and alpha2beta1 integrins. Proc. Nat'l Acad. Sci. USA 94: 13612-13617.			
	C34	SIMON, K.O. et al. 1997. The alpha v beta3 integrin regulates alpha5beta1-mediated cell migration toward fibronectin. J. Biol. Chem. 272: 29380-29389.			
	C35	STROMBLAD S., et al. 1996. Suppression of p53 activity and p21WAF1/CIP1 expression by vascular cell integrin alpha v beta3 during angiogenesis. J Clin Invest 98: 426-433.			
	C36	STROMBLAD, S. and Cheresh, D. A. 1996. Integrins, angiogenesis and vascular cell survival. Chemistry and Biology 3: 881-885.			
	C37	SUEHIRO, K., GAILIT, J. and Plow, E.F. 1997. Fibrinogen is a ligand for integrin alpha5beta1 on endothelial cells. J. Biol. Chem. 272: 5360-5366.			
	C38	VARNER, J.A. 1997. The role of vascular cell integrin alpha v beta3 and alpha v beta5 in angiogenesis. <u>Regulation of Angiogenesis</u> (ed. by I.D. Goldberg & E.M. Rosen Birkhauser Verlag, Basel/Switzerland) Exs. 79: 361-390.			
	C39	VARNER, J.A. et al. 1995. Integrin alpha5beta1 expression negatively regulates cell growth: reversal by attachment to fibronectin. Mol. Biol. Cell 6: 725-740.			
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	C40	YANG, J.T., et al. 1993. Embryonic mesodermal defects in $\alpha 5$ integrin-deficient mice. Development 119: 1093-1105.			
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